

REMARKS

Claims 1-2 and 4-14 are all the claims pending in the application. Applicant amends claims 1 and 13 and cancels claim 3 by way of this Amendment. Applicant thanks the Examiner for indicating that claim 8 contains patentable subject matter.

I. Specification and Abstract:

The Examiner has indicated that the “Cross-Reference to Related Applications” section should be added at the beginning of the specification. Applicant has amended the specification as requested, and additionally made corrections to the Abstract to conform to U.S. Patent Office practice.

II. Prior Art Rejections

Claims 1, 2, 4-7 and 9-14 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Kenichiro et al. (JP 6331557).

Claim 3 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Kenichiro et al. (JP 6331557) in view of Christian et al. (JP 11271175).

Analysis

Claims 1 and 13 are the only claims in independent form; therefore, the following discussion is initially directed to these independent claims.

Claims 1 and 13 have been amended to clarify the present invention. In particular, none of the cited references teaches or suggests arranging the light axis of the illumination device to be offset from the center line of the optical fiber strand. As illustrated in FIG. 4, for example, the present invention teaches that the light axis 31c is shifted from the center of CL1 by a distance L1. Moreover, this shift from the center is on the side of the fiber opposite from the imaging

device. By shifting the light axis, the illumination light from the device is not reflected toward the line sensor camera, and thereby it is possible to prevent an incorrect action of the defect detection apparatus. (See page 10 of the originally filed specification.)

None of the cited references teaches or suggests this positional arrangement. JP '557 fails to teach or suggest a line sensor and the particular structural arrangement of the present invention with respect to a line sensor, optical axis and illumination of light. JP '175 discloses that a plurality of optical beams is emitted in a direction vertical to the axial direction of the fiber 3. If interpreted in its broadest sense, some of the beams are offset from the center; however, some of the beams are purposefully emitted forward of the center so that they can reflect toward the detector. In fact, the basic premise of JP '175 is to measure which light beams are reflected toward the detector 9. This is completely opposite to the present invention in which the illumination device is positioned in such a manner as to prevent light from being reflected toward the imaging device. See page 10 of the specification. Thus, JP '175 fails to emit illumination light only to the side of the center line of the optical fiber which is opposite to the imaging device.

In view of the foregoing, the combination of cited references fails to teach or suggest the present invention according to claims 1 and 13. Therefore, Applicant respectfully requests the Examiner to withdraw the rejection of claims 1 and 13.

Claim 2 is patentable for at least the same reasons as claim 1 by virtue of its dependency therefrom.

With respect to dependent **claims 4-7**, the Examiner fails to provide the proper support for a prima facie case of obviousness. Namely, there is no teaching or suggestion to make the

alleged modifications to JP ‘557. The asserted motivation is not found in any of the prior art; there is no objective reason to modify JP ‘557 to have a defect detection section set a detection start position or a defect detection range in the manner of the claims. These features are completely missing from the cited reference and there is no basis for adding them to JP ‘557 in the claimed manner. The Examiner should provide support for these assertions in accordance with MPEP § 2144.03 accordingly.

Similarly, with respect to **claim 9**, there is no teaching or suggestion in any of the cited references to include a marking device. The Office Action merely states that a marking device “would have been known” but there is absolutely no support for this assertion. Thus, the Examiner should provide support for this assertion, as well as the requisite motivation for making the modification to JP ‘557, in accordance with MPEP § 2144.03.

Finally, **claims 10-14** are patentable for at least the same reasons as claims 1 and 13 by virtue of their dependency therefrom.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

AMENDMENT UNDER 37 C.F.R. § 1.111
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The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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